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# ENVIRONMENTAL PROTECTION AGENCY 40 CFR Part 261 [EPA-R06-RCRA-2009-0312; SW FRL-9490-9]

## Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Final Exclusion

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is granting a petition submitted by Eastman Chemical Corporation - Texas Operations (Eastman Chemical) to exclude from hazardous waste control (or delist) a certain solid waste. This final rule responds to the petition submitted by Eastman Chemical to delist three waste streams generated from its rotary kiln incinerator (RKI). These waste streams are the rotary kiln incinerator (RKI) bottom ash, RKI fly ash, and RKI scrubber water blowdown. The RKI bottom ash and the RKI fly ash are derived from the management of several F-, K-, and U- waste codes. These waste codes are F001, F002, F003, F005, F039, K009, K010, U001, U002, U031, U069, U107, U112, U117, U140, U147, U161, U213, and U359. The Scrubber water blowdown produced by the RKI's air pollution control equipment is also derived from the management of several F-, K-, and U- waste codes as well as certain characteristic hazardous wastes. These waste codes are D001, D002, D003, D007, D008, D018, D022, F001, F002, F003, F005, F039, K009, K010, U001, U002, U031, U069, U107, U112, U117, U140, U147, U161, U213, and U359. The RKI is authorized to manage a list of additional F-, K-, U-, and P- codes to cover off-site

sources not attributed to the above waste codes. If these waste codes are not specifically listed in the delisting exclusion, they are not covered by the exclusion and can not be managed as non-hazardous, unless and until, the exclusion is modified to include them.

After careful analysis and evaluation of comments submitted by the public, the EPA has concluded that the petitioned wastes are not hazardous waste when disposed of in Subtitle D landfills or in the case of the scrubber water blowdown, discharged in conjunction with its TPDES discharge permit. This exclusion applies to the RKI bottom ash, RKI fly ash and RKI scrubber water blowdown generated at Eastman Chemical's Longview, Texas facility. Accordingly, this final rule excludes the petitioned waste from the requirements of hazardous waste regulations under the Resource Conservation and Recovery Act (RCRA) when disposed of in Subtitle D landfills or discharged in accordance with a TPDES permit but imposes testing conditions to ensure that the future-generated wastes remain qualified for delisting.

**EFFECTIVE DATE:** [Insert date of publication in Federal Register.]

ADDRESSES: The public docket for this final rule is located at the U.S. Environmental Protection Agency Region 6, 1445 Ross Avenue, Dallas, Texas 75202, and is available for viewing in the EPA Freedom of Information Act review room on the 7th floor from 9:00 a.m. to 4:00 p.m., Monday through Friday, excluding Federal holidays. Call (214) 665-6444 for appointments. The reference number for this docket is "EPA-R06-RCRA-2009-0312". The public may copy material from any regulatory docket at no cost for the first 100 pages and at a cost of \$0.15 per page for additional copies.

FOR FURTHER INFORMATION CONTACT: For general information, contact Ben

Banipal, at (214) 665-7324. For technical information concerning this notice, contact Michelle Peace, U.S. Environmental Protection Agency, 1445 Ross Avenue, Dallas, Texas, (214) 665-7430.

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#### I. Overview Information

# A. What action is EPA finalizing?

The EPA is finalizing:

(1) the decision to grant Eastman's petition to have its RKI Fly ash, bottom ash and scrubber blowdown water excluded, or delisted, from the definition of a hazardous waste, subject to certain continued verification

- and monitoring conditions; and
- (2) to use the Delisting Risk Assessment Software to evaluate the potential impact of the petitioned waste on human health and the environment. The Agency used this model to predict the concentration of hazardous constituents released from the petitioned waste, once it is disposed.

After evaluating the petition, EPA proposed and issued a direct final rule, on September 24, 2010 to exclude the Eastman Chemical waste from the lists of hazardous wastes under §§261.31 and 261.32. The direct final rule received adverse comments and was subsequently withdrawn on November 1, 2010. This decision is based on the proposed rule issued on September 24, 2010. The comments received on this rulemaking will be addressed as part of this decision.

## B. Why is EPA approving this delisting?

Eastman's petition requests a delisting for the listed hazardous wastes associated with three waste streams. Eastman does not believe that the petitioned wastes meet the criteria for which EPA listed it. Eastman also believes no additional constituents or factors could cause the waste to be hazardous. EPA's review of this petition included consideration of the original listing criteria, and the additional factors required by the Hazardous and Solid Waste Amendments of 1984 (HSWA). See section 3001(f) of RCRA, 42 U.S.C. 6921(f), and 40 CFR 260.22 (d)(1)-(4). In making the final delisting determination, EPA evaluated the petitioned waste against the listing criteria and factors cited in §§ 261.11(a)(2) and (a)(3). Based on this review, the EPA agrees with the petitioner that the waste is nonhazardous with respect to the original listing criteria. (If the

EPA had found, based on this review, that the waste remained hazardous based on the factors for which the waste were originally listed, EPA would have proposed to deny the petition.) The EPA evaluated the waste with respect to other factors or criteria to assess whether there is a reasonable basis to believe that such additional factors could cause the waste to be hazardous. The EPA considered whether the waste is acutely toxic, the concentration of the constituents in the waste, their tendency to migrate and to bioaccumulate, their persistence in the environment once released from the waste, plausible and specific types of management of the petitioned waste, the quantities of waste generated, and waste variability. The EPA believes that the petitioned waste does not meet these criteria. EPA's final decision to delist waste from Eastman's facility is based on the information submitted in support of this rule, i.e., descriptions of the Rotary Kiln Incinerator, and analytical data from the Longview facility.

#### C. What are the limits of this exclusion?

This exclusion applies to the waste described in the petition only if the requirements described in Table 1, 2, and 3 of part 261, Appendix IX and the conditions contained herein are satisfied. The exclusion applies to 1,000 cubic yards per calendar year of RKI fly ash; 750 cubic yards per calendar year of RKI bottom ash; and 643,000 cubic yards (500,000 million gallons) of RKI scrubber water blowdown waste resulting from the operations of the rotary kiln incinerator at its facility.

D. How will Eastman Chemical manage the waste if it is delisted?
 Eastman will dispose of the fly ash and bottom ash in an onsite Subtitle D landfill.

The scrubber water blowdown will be managed in the waste water treatment plant (WWTP). The sludge from the WWTP was delisted in 2000, and there are new waste codes being managed as part of this petition. See Appendix IX to Part 261, Table 1. All management occurs on-site and will remain the same after the delisting is granted.

## E. When is the final delisting exclusion effective?

This rule is effective [insert date of publication in Federal Register]. The Hazardous and Solid Waste Amendments of 1984 amended Section 3010 of RCRA to allow rules to become effective in less than six months when the regulated community does not need the six-month period to come into compliance. That is the case here because this rule reduces, rather than increases, the existing requirements for persons generating hazardous wastes. These reasons also provide a basis for making this rule effective immediately, upon publication, under the Administrative Procedure Act, pursuant to 5 U.S.C. 553(d).

#### F. How does this final rule affect states?

Because EPA is issuing this exclusion under the Federal RCRA delisting program, only states subject to Federal RCRA delisting provisions would be affected.

This would exclude two categories of States: States having a dual system that includes Federal RCRA requirements and their own requirements, and States who have received our authorization to make their own delisting decisions.

Here are the details: We allow states to impose their own non-RCRA regulatory requirements that are more stringent than EPA's, under section 3009 of RCRA. These more stringent requirements may include a provision that prohibits a Federally issued exclusion from taking effect in the State. Because a dual system (that is, both Federal

(RCRA) and State (non-RCRA) programs) may regulate a petitioner's waste, we urge petitioners to contact the State regulatory authority to establish the status of their wastes under the State law.

EPA has also authorized some States (for example, Louisiana, Georgia, Illinois) to administer a delisting program in place of the Federal program, that is, to make State delisting decisions. Therefore, this exclusion does not apply in those authorized States. If Eastman Chemical transports the petitioned waste to or manages the waste in any State with delisting authorization, Eastman Chemical must obtain delisting authorization from that State before they can manage the waste as nonhazardous in the State.

#### II. Background

## A. What is a delisting petition?

A delisting petition is a request from a generator to EPA or another agency with jurisdiction to exclude from the list of hazardous wastes, wastes the generator does not consider hazardous under RCRA.

## B. What regulations allow facilities to delist a waste?

Under 40 CFR §§260.20 and 260.22, facilities may petition the EPA to remove their wastes from hazardous waste control by excluding them from the lists of hazardous wastes contained in §§261.31 and 261.32. Specifically, §260.20 allows any person to petition the Administrator to modify or revoke any provision of Parts 260 through 266, 268 and 273 of Title 40 of the Code of Federal Regulations. Section 260.22 provides generators the opportunity to petition the Administrator to exclude a waste on a "generator-specific" basis from the hazardous waste lists.

#### C. What information must the generator supply?

Petitioners must provide sufficient information to EPA to allow the EPA to determine that the waste to be excluded does not meet any of the criteria under which the waste was listed as a hazardous waste. In addition, the Administrator must determine, where he/she has a reasonable basis to believe that factors (including additional constituents) other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste.

#### III. EPA's Evaluation of the Waste Data

#### A. What waste did Eastman Chemical petition EPA to delist?

Eastman petitioned EPA on December 1, 2008, to exclude from the lists of hazardous wastes contained in §§ 261.24, 261.31, and 261.32, certain wastes from its rotary kiln incineration system. The three waste streams included in the petition were: the RKI fly ash, RKI bottom ash and RKI scrubber water blowdown.

The waste streams are generated from the Eastman facility located in Longview, Texas. The RKI fly ash and RKI bottom ash are listed under EPA Hazardous Waste No. F001, F002, F003, F005, F039, K009, K010, U001, U002, U031, U069, U107, U112, U117, U140, U147, U161, U213, and U359. The Scrubber water blowdown produced by the RKI's air pollution control equipment is also derived from the management of several F-, K-, and U- waste codes as well as certain characteristic hazardous wastes. These waste codes are D001, D002, D003, D007, D008, D018, D022, F001, F002, F003, F005, F039, K009, K010, U001, U002, U031, U069, U107, U112, U117, U140, U147, U161, U213, and U359. Specifically, in its petition, Eastman requested that EPA grant exclusions for 1,000 cubic yards per calendar year of RKI fly

ash; 750 cubic yards per calendar year of RKI bottom ash; and 643,000 cubic yards (500,000 million gallons) of RKI scrubber water blowdown waste resulting from the operations of the rotary kiln incinerator at its facility.

Eastman intends to dispose of the delisted RKI bottom ash and RKI fly ash at a on-site Subtitle D Landfill, and the RKI scrubber water blowdown will be treated in the Wastewater Treatment Plant. Treatment of process wastes and wastes from captured facilities generate the RKI bottom ash, RKI fly ash, and RKI scrubber water blowdown that is classified as F001, F002, F003, F005, F039, K009, K010, U001, U002, U031, U069, U107, U112, U117, U140, U147, U161, U213, and U359 listed hazardous wastes pursuant to 40 CFR 261.31 and 261.32. The 40 CFR Part 261 Appendix VII hazardous constituents which are the basis for listing can be found in Table 1 and Table 2.

Table 1

EPA Waste Codes for RKI Fly and Bottom Ashes and the Basis for Listing

Waste Code	Basis For Listing	
F001	Tetrachloroethylene, methylene chloride trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons.	
F002	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane.	
F003	N.A., xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexane, methanol	
F005	Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, 2-ethoxyethanol, benzene, 2-nitropropane.	
F039	All constituents for which treatment standards are specified for multi-source leachate (wastewaters and nonwastewaters) under 40 CFR 268.43, Table CCW.	
K009	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid	
K010	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid, chloroacetaldehyde	
U001	Acetaldehyde	
U002	Acetone	
U028	Bis (2-ethyl hexyl) phthalate	
U031	n-Butyl alcohol	
U069	Dibutyl phthalate	
U088	Di-ethyl phthalate	
U107	Di-n-octyl phthalate	
U112	Ethyl acetate	
U115	Ethylene oxide	
U117	Ethane, 1,1'-oxybis-(I)	
U122	Formaldehyde	
U140	Isobutyl alcohol	
U147	Maleic anhydride	

U154	Methanol	
U159	Methyl ethyl ketone	
U161	Methyl isobutyl ketone	
U213	Tetrahydrofuran	
U220	Toluene	
U226	1,1,1-Trichloroethane (methyl	
	chloroform)	
U239	Xylene	
U359	Ethylene glycol monoethyl ether	

Table 2
EPA Waste Codes for RKI Scrubber Water Blowdown and the Basis for Listing

Waste Code	Basis For Listing
F001	Tetrachloroethylene, methylene chloride
	trichloroethylene, 1,1,1-trichloroethane, carbon
	tetrachloride, chlorinated fluorocarbons.
F002	Tetrachloroethylene, methylene chloride,
	trichloroethylene, 1,1,1-trichloroethane, 1,1,2-
	trichloroethane, chlorobenzene, 1,1,2-trichloro-
	1,2,2-trifluoroethane, ortho-dichlorobenzene,
	trichlorofluoromethane.
F003	N.A., xylene, acetone, ethyl acetate, ethyl
	benzene, ethyl ether, methyl isobutyl ketone, n-
	butyl alcohol, cyclohexane, methanol
F005	Toluene, methyl ethyl ketone, carbon
	disulfide, isobutanol, pyridine, 2-ethoxyethanol,
	benzene, 2-nitropropane.
F039	All constituents for which treatment
	standards are specified for multi-source leachate
	(wastewaters and nonwastewaters) under 40 CFR
	268.43, Table CCW.
K009	Chloroform, formaldehyde, methylene
	chloride, methyl chloride, paraldehyde, formic acid
K010	Chloroform, formaldehyde, methylene
	chloride, methyl chloride, paraldehyde, formic
11224	acid, chloroacetaldehyde
U001	Acetaldehyde
U002	Acetone
U028	Bis (2-ethyl hexyl) phthalate
U031	n-Butyl alcohol
U069	Dibutyl phthalate
U088	Di-ethyl phthalate

U107	Di-n-octyl phthalate	
U112	Ethyl acetate	
U115	Ethylene oxide	
U117	Ethane, 1,1'-oxybis-(I)	
U122	Formaldehyde	
U140	Isobutyl alcohol	
U147	Maleic anhydride	
U154	Methanol	
U159	Methyl ethyl ketone	
U161	Methyl isobutyl ketone	
U213	Tetrahydrofuran	
U220	Toluene	
U226	1,1,1-Trichloroethane (methyl chloroform)	
U239	Xylene	
U359	Ethylene glycol monoethyl ether	
D001	Ignitability	
D002	Corrosivity	
D003	Reactivity	
D007	Chromium	
D008	Lead	
D018	Benzene	
D022	Chloroform	

# B. How much waste did Eastman Chemical propose to delist?

Specifically, in its petition, Eastman requested that EPA grant exclusions for 1,000 cubic yards per calendar year of RKI fly ash; 750 cubic yards per calendar year of RKI bottom ash; and 643,000 cubic yards (500,000 million gallons) of RKI scrubber water blowdown waste resulting from the operations of the rotary kiln incinerator at its facility.

# C. How did Eastman Chemical sample and analyze the waste data in this petition?

To support its petition, Eastman submitted:

1. analytical results of the toxicity characteristic leaching procedure and total

- constituent analysis for volatile and semivolatile organics, pesticides, herbicides, dioxins/furans, PCBs and metals for eight samples for the RKI fly ash and RKI bottom ash, and RKI scrubber water blowdown;
- analytical results of the total constituent analysis for volatile and semivolatile organics, pesticides, herbicides, dioxins/furans, PCBs and metals for eight samples for the RKI scrubber water blowdown;
- 3. analytical results from multiple pH leaching of metals and;
- 4. the comparison of the results to the maximum allowable TCLP delisting levels found in Tables 4,5, and 6.
- 5. description of the operations and waste received of the RKI.

TABLE 4
Analytical Results and Maximum Allowable Delisting Concentrations of the RKI bottom ash<sup>1</sup>

Constituent	Maximum Total(mg/kg)	Maximum TCLP (mg/l)	Maximum Allowable TCLP Delisting Level (mg/L)
Antimony	16	0.062	0.801
Acetone	0.194	0.772	33.8
Arsenic	8.8	0.029	0.126
Acetaldehyde	1.37	<0.0100	5.35
Acenaphthylene	3.5	0.014	31.9
Anthracene	1.6	<0.0100	77.9
Acenaphthene	0.721	0.014	31.9
Barium	370	0.7	100
Benzene	<0.170	0.0048	0.231
Bis(2-	0.23	0.017	103.0
ethylhexyl)phthalate			
Benzo(a) anthracene	0.763	<0.0100	0.211
Benzo(a) pyrene	0.519	<0.0100	79.1
Benzo(b) flouranthene	0.343	<0.0100	673
Bromomethane	0.057	<0.0100	0.0526

n-Butyl alcohol	4.5	<0.0100	174
Cadmium	1.5	0.002	0.274
Chromium	14	0.02	5.0
Cobalt	31	0.023	0.643
Copper	29	0.048	73.8
Chloroform	0.0024	0.0047	0.241
Chrysene	0.545	<0.0100	211
Chloromethane	0.034	<0.0100	18.2
Cyanide	0.195	0.125	9.25
4,4-DDT	0.0032	<0.0100	0.0103
Di-n-butyl phthalate	<0.010	0.005	73.9
Dieldrin	0.0013	<0.0100	2.78
Ethylbenzene	0.0086	0.00855	32.6
Fluorene	2.24	0.031	14.7
Formaldehyde	4.6	0.23	347
Fluoranthrene	1.22	<0.0100	7.39
Isobutanol	1.9	1.88	521
Lead	7.1	0.016	1.95
Mercury	<0.017	<0.0002	0.2
Methyl Isobutyl ketone	0.0035	0.0048	139
2-Methylnaphathalene	0.501	0.012	2.18
Methylene Chloride	0.072	0.131	0.237
Naphthalene	<0.022	<0.0100	0.0983
Nickel	44,000	52	54.1
Phenanthrene	6.48	0.039	14.7
Pyrene	2.67	<0.0100	13.4
Selenium	15	0.074	1.0
Silver	0.027	<0.0020	5.0
Tetrachlorodibenzo-p-	0.31E-06	<5.92E-08	7.46 E-06 mg/kg
dioxin			total
(TCDD) 2,3,7,8-			
Thallium	3.7	0.017	0.110
Tin	3.9	<0.0100	22.5
Toluene	0.015	0.0066	45.4
Vanadium	7.1	0.11	10.4
Xylenes	0.049	0.0486	28.7
Zinc	550	8.5	600

<sup>&</sup>lt;sup>1</sup> These levels represent the highest concentration of each constituent found in any one sample. These levels do not necessarily represent the specific levels found in one sample.

<sup>&</sup>lt;# Denotes that the constituent was below the detection limit.

TABLE 5
Analytical Results and Maximum Allowable Delisting Concentrations of the RKI fly ash<sup>1</sup>

Constituent	Maximum Total (mg/kg)	Maximum TCLP (mg/l)	Maximum Allowable TCLP Delisting Level (mg/L)
Antimony	25	0.18	0.433
Acetone	0.177	0.959	2070
Arsenic	18	0.045	0.418
Acetaldehyde	255	<0.001	0.6264
Barium	110	1.4	100
Bis(2- ethylhexyl)phthalate	0.157	0.006	0.0522
Cadmium	2.9	0.011	0.362
Chromium	5.9	0.015	5.0
Cobalt	86	0.1	0.852
Copper	100	0.52	97.1
Chloroform	0.002	0.0044	0.319
Chloromethane	0.0285	0.0018	24.1
Cyanide	0.17	<0.001	0.0154
Delta BHC	0.0031	<0.001	3
1,2-Dichlorobenzene	<0.5	0.0027	37
1,3-Dichlorobenzene	<0.5	0.0023	37
Formaldehyde	5.44	0.272	461
Lead	12	0.021	2.45
Methanol	12.2	<0.001	0.6743
Methyl isobutanol ketone	0.004	0.0048	184
Methylene Chloride	0.047	0.137	0.315
Nickel	110,000	47	53.8
Nitrobenzene	<0.5	0.011	1.15
Selenium	25	0.082	1.0
Silver	2.4	<0.001	5.0
Thallium	6.7	0.019	0.146
Tin	7.8	<0.001	22.5
Toluene	0.002	0.037	60.1
Vanadium	6.2	<0.001	14.36
Zinc	4200	<0.001	11.3
Tetrachlorodibenzo-p- dioxin (TCDD) 2,3,7,8-		2.8 E-06mg/kg	8.39 E-05 mg/kg total

These levels represent the highest concentration of each constituent found in any one sample. These levels do not necessarily

represent the specific levels found in one sample.

<# Denotes that the constituent was below the detection limit.

TABLE 6
Analytical Results and Maximum Allowable Delisting Concentrations of the RKI scrubber water blowdown <sup>1</sup>

Constituent	Maximum TCLP(mg/l)	Maximum Allowable TCLP Delisting Level (mg/l)
Antimony	0.041	0.0568
Arsenic	0.013	0.112
Barium	0.61	11.6
Bis(2- ethylhexyl)phthalate	0.009	0.0522
Chromium	0.019	10.3
Cobalt	0.012	0.318
Copper	0.052	22.1
Chloroform	0.001	0.0163
Chloromethane	0.0021	1.48
Cyanide	0.0048	0.752
Di-n-butylphthalate	0.001	25.6
Lead	0.019	2.57
Methanol	0.42	70.6
Nickel	0.50	5.74
Silver	0.002	1.71
Thallium	0.011	0.0179
Tin	0.022	22.5
Vanadium	0.006	4.88
Zinc	16	77.7

<sup>&</sup>lt;sup>1</sup> These levels represent the highest concentration of each constituent found in any one sample. These levels do not necessarily represent the specific levels found in one sample.

<sup>&</sup>lt;# Denotes that the constituent was below the detection limit.

#### IV. Public Comments Received On The Proposed Exclusion

#### A. Who submitted comments on the proposed rule?

The EPA received public comments on the September 24, 2010, proposed rule from two interested parties, the Environmental Technology Council (ETC), and Heritage Environmental. Heritage Environmental submitted comments objecting to the absence of the full administrative record not appearing electronically on the regulations.gov site on October 28, 2010. ETC submitted three rounds of comments dated October 28, 2010, February 7, 2011, and March 7, 2011. The comments and responses are addressed below. Some of the ETC October 28, 2010 comments requested documents that were not contained in the electronic docket. The actual records were sent to the commenter for verification purposes and no further comment is warranted.

## B. What Comments were submitted on the Eastman Delisting Petition?

Comment 1. The administrative record does not contain the company's waste sampling plan, waste analysis plan or analytical test results. The commenter cannot determine such basic information as the number and representative nature of the waste samples. The Federal Register notice ambiguously states that Eastman submitted analytical results "for eight samples for the RKI fly ash and RKI bottom ash, and RKI scrubber water blowdown." 75 Fed. Reg. at 58319.

**Response 1.** The electronic docket for this rule only contained the proposed rule and associated materials. The administrative record for this rule contains the petition including the sampling and analysis plan and results. Requests for items not found

online in the electronic docket can be requested from the Regional office as described in the notice. These documents were provided to the commenter in an electronic format on January 7, 2011, after a request for information was made.

Comment 2. A commenter cannot determine from this general description whether the petition is supported by a total of only eight sample results, or whether EPA Region 6 meant eight samples for each type of waste material, or how many samples of each type of waste were collected. In other words, commenters cannot even determine whether the minimum number of four samples of each type of waste was collected as provided in EPA's Delisting Guidance. There is no information on how the samples were collected, what wastes were incinerated prior to sampling, whether the samples were representative of wastes processed in the unit, and why EPA Region 6 believes the analytical results submitted with the petition adequately support the delisting. In addition, commenters cannot ascertain basic information on the analytical testing that was conducted, such as detection limits and the quality assurance/quality control procedures followed by the testing laboratory. We cannot even determine whether the analysis was conducted by Eastman or a certified third-party laboratory. The commenter cannot effectively comment on the delisting without this necessary information and an adequate explanation by EPA of the basis for this administrative action.

Response 2. The administrative record for this petition does include the information the commenter wanted to verify. Those documents were not included in the electronic docket because electronic copies were not available at the time of proposal. Requests for items not found online in the electronic docket could have been requested from the

Regional office as described in the notice.

Comment 3. Surprisingly, the record also does not contain the DRAS modeling results or any report on the model inputs, analysis, or conclusions, other than the summaries for constituents in the Federal Register tables. Most of the description of the DRAS analysis in the Federal Register notice is boilerplate that EPA includes in every delisting notice, and very little information or analysis is presented regarding the subject wastes.

**Response 3.** The DRAS results are not available electronically for this docket. The administrative record for the rule contains hard copies of each DRAS run and the results. Requests for items not found online in the electronic docket can be requested from the Regional office as described in the notice.

Comment 4. From the limited information gleaned from the Federal Register notices, the commenter must also raise a number of substantive concerns about the delisting petition. It appears that only total and TCLP analyses were conducted on the subject wastes. As EPA is aware, the TCLP was intended to simulate the highly acidic conditions in an active municipal landfill with decomposing organic wastes, and yet it appears that the subject wastes would be disposed in an on-site industrial landfill. No information is provided on the pH conditions of the industrial landfill. The leachability of hazardous constituents can be highly dependent on pH. If the pH in the landfill receiving the waste is not acidic, the leaching of the delisted waste may not perform as predicted by the TCLP. For this reason, EPA's Delisting Guidance provides for testing of the waste under a range of pH conditions. It does not appear that this guidance was

followed, and EPA has provided no explanation for public comment on why the subject waste was not tested under multiple pH conditions. In most of the delisting actions by other EPA regions of which the commenter is aware, multiple pH testing was required and we cannot determine, and therefore cannot comment on, whether and why such testing was not required for this delisting petition

Response 4. Multiple pH testing was conducted on the materials, since the multiple pH test is not a recognized test method or test protocol, while mentioned in guidance and performed by most petitioners, EPA Region 6 has never published the data gathered from these results. In all delistings, only TCLP and totals data are reported. Requests for items not found online in the electronic docket can be requested from the Regional office as described in the notice.

Comment 5. In addition, Eastman apparently petitioned to exclude waste streams that bear a limited subset of RCRA Hazardous Waste Codes (5 F- codes, 2 K- codes, and 12 U- codes). The correct identification of these waste codes is critical because EPA then used the basis for listing these waste codes to select a relatively short list of hazardous constituents for analysis and delisting levels. 75 Fed. Reg. at 58318. In our experience, it seems highly improbable that these are the only codes associated with incinerator operations at a large, complex chemical facility. Indeed, the Federal Register notice does disclose that the incinerator is RCRA-permitted for "a variety of D-, F-, U-, K-, and P- codes." 75 Fed. Reg. at 58317. Apparently many of these coded wastes were not considered for purposes of the petition. Given the nature of incinerator operations, there is no explanation for how ash and scrubber water covered by the

petition would not also contain these additional waste codes. Indeed, there is literally no information in the administrative record for public comment on why the limited set of waste codes was selected for the petition, and how EPA will assure that only incinerator ash and scrubber water bearing only the 19 selected codes will be managed as delisted wastes.

Response 5. The Eastman Permit limits the types of wastes that are treated in its rotary kiln incinerator to those addressed in the delisting petition. The operating permit for the rotary kiln incinerator restricts and limits the acceptance of wastes which carry only these 19 codes. Those 19 waste codes were considered the focus of the delisting. Wastes with codes not listed in the Delisting Petition are still subject to hazardous waste regulation and are not covered by the delisting exclusion.

Comment 6. Moreover, the Federal Register notice states that "there are some production plants that are not owned by Eastman but are located on the facility," and these unidentified plants also send hazardous wastes to the incinerator. 75 Fed. Reg. at 58317. There is no information in the record that identifies these facilities, including the nature of their production activities, raw materials used, and wastes generated.

Hazardous wastes are also accepted for processing in the incinerator "from other offsite Eastman facilities." *Id.* Again, no information is provided in the administrative record that identifies these facilities or describes their processes, raw materials, or generated wastes, other than the broad assertion in the Federal Register that the wastes are "similar" to those generated by Eastman. *Id.* Since the full and accurate description of the hazardous wastes processed in the incinerator is critical to the proper selection of

hazardous constituents for testing and delisting analysis, this bare-bones description and lack of supporting data and information in the administrative record cannot sustain a delisting action.

Response 6. The Eastman RCRA Permit allows the facility to accept wastes from other Eastman facilities and treat in the rotary kiln incinerator. The Permit limits the types of wastes that are treated in its rotary kiln incinerator to those addressed in the delisting petition. The operating permit for the rotary kiln incinerator restricts and limits the acceptance of wastes which carry only these 19 codes. Those 19 waste codes were considered the focus of the delisting. Wastes with codes not listed in the Delisting Petition are still subject to hazardous waste regulation and are not covered by the delisting exclusion.

Comment 7. The DRAS model was apparently run for only 49 hazardous constituents, a surprisingly small number. Under RCRA section 3001(f), EPA must consider not only the constituents for which the subject wastes were listed, but also additional constituents that may cause the waste to be hazardous. Under EPA's Delisting Guidance, the Agency usually requires that a delisting petitioner submit analytical results and undertake DRAS modeling for literally hundreds more hazardous constituents. Again, it somewhat defies credulity that incinerator ash and scrubber water from a major, complex chemical plant would contain such a small list of only 49 hazardous constituents. Lacking any analytical data or other information in the administrative record, however, ETC cannot effectively comment on this critical issue. In fact, ETC cannot comment on the DRAS modeling in any substantive respect because

the record contains inadequate information.

Response 7. The EPA provided the administrative record and its supporting documents to the commenter. No additional comments were received regarding the DRAS analysis of the waste streams. Generally, in all delistings, the DRAS model is run for chemicals which are the basis for the waste codes petitioned for in the delisting and any additional waste codes detected in the waste. For Eastman specifically, there were 19 waste codes evaluated. These waste codes represented more than 200 chemical constituents. In its analysis of the data, EPA only found that 49 of the chemical constituents were detected in the analysis of the three Eastman waste streams. These 49 waste codes were evaluated in the DRAS model.

Comment 8. We also must question why this delisting is being considered for incinerator ash and scrubber water that would effectively override the RCRA land disposal treatment standards for the subject wastes. Eastman has not petitioned to delist hazardous wastes which do not meet the listing criteria as generated. There is apparently no dispute that the waste materials processed in the incinerator are hazardous wastes.

With respect to those wastes, EPA has already made the determination based on lengthy and thorough LDR rulemakings that combustion or comparable treatment to the specified treatment levels is required to minimize short-term and long-term threats to human health and the environment. In addition, EPA has already determined that disposal of the treated wastes in a RCRA-permitted landfill that meets minimum technology requirements (double synthetic liner, groundwater monitoring, etc.) is

necessary for adequate public health and environmental protection. EPA Region 6 has provided no justification in the record for overriding these national determinations, other than the conclusory and unsupported assertion in the Federal Register notice that the delisting levels will be adequate for such protections. Since the petitioner already processes the hazardous wastes in a RCRA-permitted incinerator and disposes of the residuals in an on-site RCRA-permitted landfill, we can see no justification for the potential lessening of public health and environmental protection from the proposed delisting action. The ETC is also concerned that EPA Region 6's approval of this delisting would contravene Congress's land disposal restrictions and treatment requirements in the RCRA statute.

Likewise, after careful review of the administrative record for the Eastman Chemical delisting petition, it is clear that the incinerator ash and scrubber water blowdown derived from the incineration of numerous F-, K- and U-listed hazardous wastes are not eligible for delisting, and that such an action would also violate the RCRA treatment requirements and land disposal prohibitions.

We begin with basic principles – all seemingly ignored in the proposed delistings. A waste is eligible for delisting only if that waste as generated at a particular facility does not meet any of the criteria under which the waste was listed as a hazardous waste. In addition, the waste may not contain any other Appendix VIII constituents that would cause the waste to be hazardous. RCRA § 3001(f) and 40 CFR 260.22.

Likewise, the incinerator residues from the Eastman facility are derived from the incineration of numerous waste streams that are F001, F002, F003, F005, F039, K009,

K010, U001, U002, U031, U069, U107, U112, U117, U140, U147, U161, U213 and U359 hazardous wastes. By operation of the derived-from rule, the Eastman incinerator residues are these same F-, K- and U-listed hazardous wastes. The legal issue raised by the Eastman Chemical delisting is whether the original F-, K- and U-listed hazardous wastes would meet the applicable treatment requirements prior to land disposal if the proposed delisting of the incineration residuals were granted.

However, EPA Region 6 has proposed to delist the incinerator residues and allow land disposal at constituent levels that are significantly higher than the required treatment standards. There is no exception from the land disposal prohibitions for inadequately treated residues; in fact, allowing such an exception would obviously eviscerate the treatment requirements. The original F- K- and U-listed hazardous wastes cannot be land disposed if the incinerator ash does not meet the applicable treatment standards, and a delisting petition cannot be used to evade this statutory requirement. For this reason, the concentration levels in the incineration residues would have to be lower than applicable treatment standards for a delisting to be possible.

The following are examples of F039 treatment levels compared to Eastman delisting levels (all concentrations in mg/l TCLP): Barium 21.0 vs 100 delisted fly ash; Cadmium 0.11 vs. 0.362 delisted fly ash; Chromium 0.60 vs 5.0 delisted bottom ash and fly ash; Lead 0.75 vs 2.45 delisted fly ash; Nickel 11.0 vs 54.1 delisted bottom ash; Silver 0.14 vs 5.0 delisted fly ash and bottom ash.

**Response 8.** The Delisting Program and the LDR program serve different purposes and because they serve different purposes, different standards of compliance apply. As

the commenter states "A waste is eligible for delisting only if that waste as generated at a particular facility does not meet any of the criteria under which the waste was listed as a hazardous waste. In addition, the waste may not contain any other Appendix VIII constituents that would cause the waste to be hazardous. RCRA § 3001(f) and 40 CFR 260.22."

The derived-from rule states that any solid waste generated from the treatment, storage, or disposal of a listed hazardous waste, including any sludge, spill residue, ash, emission control dust, or leachate, remains a hazardous waste <u>unless and until delisted.</u>

(§261.3(c)(2)(i)).

EPA's regulations establish two ways of identifying solid wastes as hazardous under RCRA. A waste may be considered hazardous if it exhibits certain hazardous properties ("characteristics") or if it is included on a specific list of wastes EPA has determined are hazardous ("listing" a waste as hazardous) because we found them to pose substantial present or potential hazards to human health or the environment.

EPA's regulations in the Code of Federal Regulations (40 CFR) define four hazardous waste characteristic properties: ignitability, corrosivity, reactivity, or toxicity (see 40 CFR 261.21-261.24).

In order to list wastes EPA conducts a more specific assessment of a particular waste or category of wastes. The Agency will "list" them if they meet criteria set out in 40 CFR 261.11. As described in §261.11, EPA may list a waste as hazardous if the waste: exhibits any of the characteristics, i.e., ignitability, corrosivity, reactivity, or

toxicity (§261.11(a)(1)); is "acutely" hazardous (e.g., if it is fatal to humans or animals at low doses, §261.11(a)(2)); or it contains any of the toxic constituents listed in 40 CFR part 261, Appendix VIII and, after consideration of various factors described in the regulation, is capable of posing a "substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed" (§261.11(a)(3)).

EPA placed a substance on the list of hazardous constituents in Appendix VIII if scientific studies have shown the substance has toxic effects on humans or other life forms.

Generally, listing of wastes are not driven by threshold limits except in the case of the toxicity characteristic (TC) determination. Several of the limits cited by the commenter are the TC limit for the constituents stated. If the waste is characteristic, then it can't be delisted. The delisting limit is bound by the TC limit.

In 1984, Congress created EPA's Land Disposal Restrictions (LDR) program. The LDR program ensures that toxic constituents present in hazardous waste are properly treated before hazardous waste is land disposed. Since then, the LDR team has developed mandatory technology-based treatment standards that must be met before hazardous waste is placed in a landfill. These standards help minimize short and long-term threats to human health and the environment, which directly benefits local communities where hazardous waste landfills are located. The LDR Program does not determine if a waste is hazardous. It regulates how hazardous wastes are to be managed at the time of disposal.

We do believe that the concentrations specified as delisting levels do minimize short term and long term threats to human health and the environment. Whereas, some LDR treatment standards are based on the best demonstrated technology, the delisting exit levels are risk based standards. We have not stated that Eastman is not subject to the LDR standards because the waste was not delisted at the point of generation, Eastman may submit a variance to the treatment standards as described in §268.42(b) or 268.44 in order to ensure compliance with the LDR standards, but the Delisting decision may still be made. However, wastes destined for disposal in Subtitle C landfills are subject to the LDR limits. Therefore, wastes when delisted must comply with all applicable Subtitle D landfill requirements.

Comment 9. The ETC also notes that the DRAS software used by EPA for these delistings was apparently a new Version 3, and that the changes from Version 2 may not previously have been subject to public notice and opportunity for comment. We are in the process of determining all the changes incorporated into Version 3 and the effect of those changes on delisting levels and the protection of human health and the environment. The ETC requests that EPA Region 6 clarify the changes made in Version 3, the effect of those changes on the pending delistings, and the agency's rationales for those changes to allow for effective public comment.

**Response 9.** As discussed in the Eastman Direct Final Rule and Proposal, the changes made between version 2 of DRAS and Version 3 of DRAS are described in 73 FR 28777. In July 2007, U.S. EPA prepared an update of the DRAS by releasing version 3.0. The update addressed a number of issues with version 2 and improved the

fate and transport modeling. To estimate the downgradient concentrations of waste leachate constituents released into groundwater, the DRAS utilizes conservative dilution attenuation factors (DAFs) taken from Monte-Carlo applications of U.S. EPA's Composite Model for Leachate Migration with Transformation Products (CMTP). DRAS 3.0 includes all new DAFs from new CMTP modeling runs. The new modeling takes advantage of: updated saturated flow and transport modules; a new surface impoundment module and database; model corrections for unrealistic scenarios (like water tables modeled above the ground surface); new isotherms for metals; and a revised recharge and infiltration database. As a result, many of the DAFs used in previous versions of DRAS have changed. Further affecting the groundwater calculation, the relationships for determining scaling factors used to scale the DAFs to account for very small waste streams have been updated to reflect the new database information on landfills and surface impoundments and were also corrected for a metric conversion of cubic meters to cubic yards. The new scaling factors are generally higher than those of previous versions of DRAS, resulting in higher estimated dilution and attenuation at lower waste volumes for both landfills and surface impoundments. The new metals DAFs, based on MINTEQA2 isotherms, can vary as a function of the landfill leachate concentration. This means that the effective DAF (including a scaling factor adjustment, if necessary) for an input concentration may differ significantly with the effective DAF that corresponds to the allowable leachate concentration. DRAS 3.0 now displays the DAFs in both the forward calculated risk tables and the tables of maximum allowable concentrations so that the difference is evident to the user. The isotherms that vary by leachate concentration are represented in DRAS by a look-up table with

leachate concentrations paired with DAFs. In the event that an actual concentration input to DRAS lies between two values in the table, or an allowable receptor concentration lies between two calculated receptor concentrations from the table. DRAS 3.0 will linearly and proportionally extrapolate between the two values to determine the corresponding exposure or allowable leachate concentration. EPA changed the calculation for particle emissions caused by vehicles driving over the waste at the landfill to provide a more realistic estimate. The estimate depends upon the number of trips per day landfill vehicles make back and forth over the waste. In previous versions of DRAS, this value was conservatively set at a 100 trips per day, corresponding with an extremely high annual waste volume. In DRAS 3.0, a minimum number of trips per day was conservatively assumed from the Subtitle D landfill survey (7.4 trips per day at the 95th percentile of values reported). The number of trips per day specific to the actual waste volume is then added to the minimum to reflect the impact of very large waste streams. This will considerably reduce the particle emission estimate for wastes generated at all but the largest annual volumes. EPA added a conversion from English to metric tons to the calculation of particle emissions from waste unloading, resulting in a decrease of roughly 10% over previous versions of DRAS. We also made a unitconversion factor correction to part of the air volatile pathway which will reduce the impact to the receptor. An error in the back-calculation for fish ingestion pathway was corrected to reflect the difference between freely dissolved and total water column waste constituent concentrations. For the estimation of risk and hazard, we made a number of updates to the forward and back calculations. Previous versions of DRAS assumed that only 12.5% of particles are absorbed by the receptor's respiratory system. This is no longer necessary as toxicity reference values for inhalation currently recommended by U.S. EPA relate risk or hazard directly to exposure concentration. DRAS 3.0 does not include the 12.5% reduction. This change significantly increases estimated risks due to particle inhalation and lowers corresponding allowable concentrations. DRAS Version 3.0.47 has a reformulated back calculation of the allowable leachate concentrations from exposure due to contaminants volatilized during household water use to match the forward calculation of risk. In previous versions of DRAS, the forward calculation summed the risks from exposure to all three evaluated household compartments (the shower, the bathroom, and the whole house) while the back calculation based the maximum allowable level on the single most conservative compartment. The DRAS 3.0 maximum allowable leachate concentrations are now based on the combined impact of all three compartments. The house exposure was also expanded to a 900 minute (15 hour) daily exposure to reflect non-working residents who have an overall 16 hour in-house exposure (the other 1 hour is spent in the shower and bathroom). EPA resolved the inconsistencies with the way DRAS chooses limiting pathways for specific waste constituents in DRAS 3.0. EPA checked all toxicity reference values in DRAS and updated where necessary. Approximately 180 changes were made to the toxicity reference values in DRAS based on data in IRIS, PPRTV, HEAST, NCEA, CalEPA and other sources. Some route-to-route extrapolations of oral toxicity data to inhalation exposure have been returned to DRAS 3.0 if consistent with Agency policy. See U.S. EPA 2006 for full accounting of this methodology. The same reference also includes discussions of toxicity reference choices where the multiple values were available or where the toxicity reference values were specific to particular

species of constituents.

Comment 10. On January 18, 2011, President Barack Obama signed Executive Order 13563 to "improve regulation and regulatory review" in his Administration. In the section on public participation in the regulatory process, President Obama stated that "each agency shall afford the public a meaningful opportunity to comment *through the internet* on any proposed regulation, with a comment period that should generally be at least 60 days."

**Response 10.** The Eastman Direct Final Rule published in the Federal Register on September 24, 2010, several months before President Obama's Executive Order was issued. The EPA Region 6 will abide by the order issued on January 18, 2011 in future delisting actions.

Comment 11. Obviously, our concern is that these supporting materials may have been generated subsequent to the proposed delisting, and therefore could not have been relied on by EPA in developing the proposed rule. We request that EPA Region 6 clarify whether the DRAS output files included in the administrative record were the output files relied on for the proposed rule, how this could be possible given the dates of the output files, and whether other output files existed prior to proposal of the delisting that were not included in the administrative record.

**Response 11.** The DRAS outputs for the Eastman petition were generated December 10, 2009 and January 6, 2010 both prior to the issuance of the direct final rules.

**Comment 12.** An initial review of the Eastman Chemical delisting petition raises numerous questions. The petition reveals that several dioxin/furan congeners were

present in the samples of incinerator ash, with analytical results for selected hexa-, hepta-, and octa- dioxins and -furans in the fly and bottom ashes listed in Tables 1-5 of the Petition. However, only one delisting value was provided in the tables for octachlorodibenzofuran (OCDF) in the bottom ash and fly ash at a level of 10,000,000 mg/kg. This value is equal to 1000 percent OCDF, which of course is impossible. This approach to dioxins/furans is totally inadequate for a hazardous waste incinerator, where products of incomplete combustion are a concern that must be addressed. Similarly, the delisting petition ignores PCBs, even though PCBs can form as PICs in the combustion process.

In addition, the delisting levels for numerous metals, volatiles, semi-volatiles and pesticides listed in the tables are very high, some on the order of 1,000,000,000 mg/kg (e.g., tin and xylenes for the bottom ash and methanol for the fly ash). Again, these levels are impossible, and indicate serious errors that undermine the technical veracity of the delisting petition.

Response 12. The DRAS is a mathematical model which calculates the delisting level based on health based numbers and a delisting attenuation factor. The delisting attenuation factor is not bound, so it can sometimes produce impractical values for the delisting level, because of a chemicals affinity not to leach or degrade. Those values are not proposed as exit values because the technical review of the petition highlighted the infeasibility of these situations.

**Comment 13.** Some metals are present in the incinerator ash at very close to the delisting levels. For example, antimony was present in the fly ash at a level of 0.18 mg/l

TCLP versus the delisting level of 1.08 mg/l TCLP; arsenic at a level of 0.045 versus 0.049; and nickel at 47 versus 148. For this reason, sampling and analysis to demonstrate compliance with the delisting levels should be fairly stringent, yet we do not see any information in the administrative record on EPA's sampling requirements.

Response 13. The sampling plan is part of the administrative record and the requirements for sampling frequency are explained in the verification requirements of the exclusion language. A waste is eligible for delisting only if that waste as generated at a particular facility does not meet any of the criteria under which the waste was listed as a hazardous waste. In addition, the waste may not contain any other Appendix VIII constituents that would cause the waste to be hazardous. RCRA § 3001(f) and 40 CFR 260.22. Concentrations below a delisting level are eligible for the exclusion. We do monitor and require sampling to ensure that the concentrations of the waste to be delisted are measured and below the delisting level.

**Comment 14.** As a further concern, most of the analysis for the Eastman delisting petition was apparently performed by a laboratory owned and operated by Eastman. There is no explanation for why in this case EPA Region 6 did not require use of an independent certified analytical laboratory, as must be done in most other delisting cases.

**Response 14.** The petitioner must use a certified analytical laboratory to supply data for the delisting petition. The laboratory used by Eastman is a certified laboratory and the data validation package was reviewed and accepted.

**Comment 15.** The Eastman incinerator should be considered a commercial

incineration facility because Huntsman Chemical and Air Liquide ship significant quantities of hazardous waste to the Eastman incinerator. Yet very little data is presented to describe the Huntsman and Air Liquide waste and no information is provided on waste codes. Because of the wider range and variability of waste streams processed, the sampling and analytical concerns described above are magnified and require a reasonable response from EPA.

Response 15. The wastes generated from Huntsman Chemical and Air Liquide are covered by the Texas Eastman Operating Permit and are acceptable waste streams for incineration in the rotary kiln incinerator. Both facilities are on-site at Eastman Chemical and are processes which were previously part of the Eastman Chemical Process Train but for business reasons were sold to the aforementioned companies. There is no additional variability of the waste stream created because the wastes are generated by processes owned by Huntsman and Air Liquide are present in the waste stream.

# V. Statutory and Executive Order Reviews

Under Executive Order 12866, "Regulatory Planning and Review" (58 FR 51735, October 4, 1993), this rule is not of general applicability and therefore is not a regulatory action subject to review by the Office of Management and Budget (OMB). This rule does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.) because it applies to a particular facility only. Because this rule is of particular applicability relating to a particular facility, it is not subject to the regulatory flexibility provisions of the Regulatory Flexibility Act (5 U.S.C. 601 et seq.), or to sections 202, 204, and 205 of the Unfunded Mandates Reform Act of

1995 (UMRA) (Pub. L. 104-4). Because this rule will affect only a particular facility, it will not significantly or uniquely affect small governments, as specified in section 203 of UMRA. Because this rule will affect only a particular facility, this proposed rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132, "Federalism," (64 FR 43255, August 10, 1999). Thus, Executive Order 13132 does not apply to this rule. Similarly, because this rule will affect only a particular facility, this proposed rule does not have tribal implications, as specified in Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 9, 2000). Thus, Executive Order 13175 does not apply to this rule. This rule also is not subject to Executive Order 13045, "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997), because it is not economically significant as defined in Executive Order 12866, and because the Agency does not have reason to believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. The basis for this belief is that the Agency used the DRAS program, which considers health and safety risks to infants and children, to calculate the maximum allowable concentrations for this rule. This rule is not subject to Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355 (May 22, 2001)), because it is not a significant regulatory action under Executive Order 12866. This rule does not involve technical standards; thus, the requirements of section 12(d) of the National Technology Transfer

and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply. As required by

section 3 of Executive Order 12988, "Civil Justice Reform," (61 FR 4729, February 7,

1996), in issuing this rule, EPA has taken the necessary steps to eliminate drafting

errors and ambiguity, minimize potential litigation, and provide a clear legal standard for

affected conduct. The Congressional Review Act, 5 U.S.C. 801 et seq., as added by

the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides

that before a rule may take effect, the agency promulgating the rule must submit a rule

report which includes a copy of the rule to each House of the Congress and to the

Comptroller General of the United States. Section 804 exempts from section 801 the

following types of rules (1) rules of particular applicability; (2) rules relating to agency

management or personnel; and (3) rules of agency organization, procedure, or practice

that do not substantially affect the rights or obligations of non-agency parties 5 U.S.C.

804(3). EPA is not required to submit a rule report regarding this action under section

801 because this is a rule of particular applicability.

Lists of Subjects in 40 CFR Part 261

Environmental protection, Hazardous waste, Recycling, Reporting and

recordkeeping requirements.

Authority: Sec. 3001(f) RCRA, 42 U.S.C. 6921(f)

Dated: November 9, 2011

Carl E. Edlund, P.E., Director,

Multimedia Planning and

Permitting Division.

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For the reasons set out in the preamble, 40 CFR part 261 is amended as follows:

#### PART 261 - IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

1. The authority citation for Part 261 continues to read as follows:

AUTHORITY: 42 U.S.C. 6905, 6912(a), 6921, 6922, and 6938.

2. In Tables 1, 2 and 3 of Appendix IX to Part 261 add the following waste stream in alphabetical order by facility to read as follows:

Appendix IX to Part 261 - Waste Excluded Under §§ 260.20 and 260.22.

Table 1 - Waste Excluded From Non-Specific Sources

Facility	Address	Waste Description
* *	* *	* * *
Eastman Chemical Company-Texas Operations	Longview, TX	RKI bottom ash (EPA Hazardous Waste Numbers F001, F002, F003, F005, F039, K009, K010, U001, U002, U031, U069, U107, U112, U117, U140, U147, U161, U213, and U359.) generated at a maximum rate of 1,000 cubic yards per calendar year after [insert publication date of the final rule] and disposed in Subtitle D Landfill.
		RKI fly ash EPA Hazardous Waste Number F001, F002, F003, F005, F039, K009, K010, U001, U002, U031, U069, U107, U112, U117, U140, U147, U161, U213, and U359 generated at a maximum rate of 750 cubic yards per calendar year after [insert publication date of the final rule] and disposed in Subtitle D Landfill.
		RKI scrubber water blowdown (EPA Hazardous Waste Numbers D001, D002, D003, D007, D008, D018, D022, F001, F002, F003, F005, F039, K009, K010, U001, U002, U031, U069, U107, U112, U117, U140, U147, U161, U213, and

U359 generated at a maximum rate of 643,000 cubic yards (500,000 million gallons) per calendar year after [insert publication date of the final rule] and treated and discharged from a Wastewater Treatment Plant.

For the exclusion to be valid, Eastman must implement a verification testing program for each of the waste streams that meets the following Paragraphs:

- (1) Delisting Levels: All concentrations for those constituents must not exceed the maximum allowable concentrations in mg/l specified in this paragraph.
- (A) **RKI Bottom Ash**. Leachable Concentrations (mg/l): Antimony – 0.801; Acetone – 33.8; Arsenic - 0.126; Acetaldehyde - 5.35; Acenaphthylene -31.9; Anthracene – 77.9; Acenaphthene – 31.9; Barium – 100; Benzene – 0.231; Bis(2ethylhexyl)phthalate – 103; Benzo (a) anthracene - 0.211; Benzo (a) pyrene - 79.1; Benzo (b) flouranthene - 673: Bromomethane - 0.0526: n-Butyl Alcohol – 174; Cadmium – 0.274; Chromium - 5.0; Cobalt - 0.643; Copper - 73.8; Chloroform – 0.241; Chrysene – 211; chloromethane – 18.2; Cyanide - 9.25; 4,4- DDT -0.0103; Di-n- butyl phthalate- 73.9; Dieldrin – 2.78; Ethylbenzene – 32.6; Fluorene – 14.7; Formaldehyde-347; Fluoranthrene – 7.39; Isobutanol – 521; Lead – 1.95; Mercury- 0.2; Methy Isobutyl ketone – 139; 2-Methylnaphathalene – 2.18; Methylene Chloride – 0.237; Naphthalene – 0.0983; Nickel – 54.1; Phenanthrene – 14.7; Pyrene- 13.4; Selenium – 1.0; Silver- 5.0; Thallium – 0.110; Tin – 22.5; Toluene – 45.4; Vanadium – 10.4; Xylene – 28.7; Zinc - 600.

Total Concentrations (mg/kg)
Tetrachlorodibenzo-p-dioxin (TCDD) 2,3,7,8-7.46
E-06 mg/kg.

(B) **RKI Fly Ash**. Leachable Concentrations (mg/l): Antimony – 0.111; Acetone – 533; Arsenic – 0.178; Barium – 36.9; Bis(2-ethylhexyl)phthalate – 6.15; Chromium – 2.32; Copper – 26.5; Ehtylbenzene – 11.1; Methylene Chloride – 0.0809; Naphthalene – 0.0355; Nickel – 13.8; Phenanthrene – 2.72; Toluene – 15.5; Trichloroethane – 11900; Trichloroethylene – 0.0794; Vanadium – 1.00; Zinc – 202.

Total Concentrations (mg/kg)
Tetrachlorodibenzo-p-dioxin (TCDD) 2,3,7,8-4.30 E-05 mg/kg.

- (C) **RKI Scrubber Water Blowdown**. TCLP Concentrations (mg/l): Antimony 0.0568; Arsenic 0.112; Barium 11.6; Bis(2-ethylhexyl)phthalate 0.0522; Chromium 5.0; Cobalt 0.318, Copper 22.1; Chloroform- 0.0163, Chloromethane- 1.48; Cyanide- 0.752; Di-n-butylphthalate-25.6; Lead 2.57; Methanol 70.6; Nickel 5.74; Silver 1.71; Thallium 0.0179; Tin– 22.5; Vanadium 4.88; Zinc 77.7;
- (2) Waste Holding and Handling:
- (A) Waste classification as non-hazardous can not begin until compliance with the limits set in paragraph (1) for RKI bottom ash, RKI fly ash, and RKI scrubber water blowdown has occurred for four consecutive quarterly sampling events.
- (B) If constituent levels in any annual sample and retest sample taken by Eastman exceed any of the delisting levels set in paragraph (1) for the RKI bottom ash, RKI fly ash, and RKI scrubber water blowdown, Eastman must do the following:
- (i) Notify EPA in accordance with paragraph (6) and

(ii) Manage and dispose the RKI bottom ash, RKI fly ash, and RKI scrubber water blowdown as hazardous waste generated under Subtitle C of RCRA.

### (3) Testing Requirements:

Upon this exclusion becoming final, Eastman must perform analytical testing by sampling and analyzing the RKI bottom ash, RKI fly ash, and RKI scrubber water blowdown as follows:

### (A) Initial Verification Testing:

- (i) Collect four representative composite samples of each of the RKI bottom ash, RKI fly ash, and RKI scrubber water blowdown at quarterly intervals after EPA grants the final exclusion. The first round of composite samples of each waste stream may be taken at any time after EPA grants the final approval. Sampling must be performed in accordance with the sampling plan approved by EPA in support of the exclusion.
- (ii) Analyze the samples for all constituents listed in paragraph (1). Any composite sample taken that exceeds the delisting levels listed in paragraph (1) indicates that the RKI bottom ash, RKI fly ash, and RKI scrubber water blowdown must continue to be disposed as hazardous waste in accordance with the applicable hazardous waste requirements until such time that four consecutive quarterly samples indicate compliance with delisting levels listed in paragraph (1).
- (iii) Within sixty (60) days after taking its last quarterly sample, Eastman will report its analytical test data to EPA. If levels of constituents measured in the samples of the RKI bottom ash, RKI fly ash, and RKI scrubber water blowdown do not exceed the levels set forth in paragraph (1) of this exclusion for four consecutive quarters,

Eastman can manage and dispose the non-hazardous RKI bottom ash, RKI fly ash, and RKI scrubber water blowdown according to all applicable solid waste regulations.

- (B) Annual Testing:
- (i) If Eastman completes the quarterly testing specified in paragraph (3) above and no sample contains a constituent at a level which exceeds the limits set forth in paragraph (1), Eastman must begin annual testing as follows: Eastman must test a representative composite sample of the RKI bottom ash, RKI fly ash, and RKI scrubber water blowdown for all constituents listed in paragraph (1) at least once per calendar year. If any measured constituent concentration exceeds the delisting levels set forth in paragraph (1), Eastman must collect an additional representative composite sample within 10 days of being made aware of the exceedence and test it expeditiously for the constituent(s) which exceeded delisting levels in the original annual sample.
- (ii) The samples for the annual testing shall be a representative composite sample according to appropriate methods. As applicable to the method-defined parameters of concern, analyses requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B,1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. Methods must meet Performance Based Measurement System Criteria in which the Data Quality Objectives are to demonstrate that samples of the Eastman RKI bottom ash, RKI fly ash, and RKI scrubber water blowdown are representative for all constituents listed in paragraph (1).
- (iii) The samples for the annual testing taken for

the second and subsequent annual testing events shall be taken within the same calendar month as the first annual sample taken.

- (iv) The annual testing report shall include the total amount of delisted waste in cubic yards disposed during the calendar year.
- (4) Changes in Operating Conditions: If Eastman significantly changes the process described in its petition or starts any processes that generate(s) the waste that may or could affect the composition or type of waste generated (by illustration, but not limitation, changes in equipment or operating conditions of the treatment process), it must notify EPA in writing and it may no longer handle the wastes generated from the new process as non-hazardous until the wastes meet the delisting levels set in paragraph (1) and it has received written approval to do so from EPA.

Eastman must submit a modification to the petition complete with full sampling and analysis for circumstances where the waste volume changes and/or additional waste codes are added to the waste stream.

### (5) Data Submittals:

Eastman must submit the information described below. If Eastman fails to submit the required data within the specified time or maintain the required records on-site for the specified time, EPA, at its discretion, will consider this sufficient basis to reopen the exclusion as described in paragraph(6). Eastman must:

(A) Submit the data obtained through paragraph 3 to the Chief, Corrective Action and Waste Minimization Section, Multimedia Planning and Permitting Division, U. S. Environmental Protection Agency Region 6, 1445 Ross Ave., Dallas, Texas 75202, within the time specified. All

supporting data can be submitted on CD-ROM or comparable electronic media.

- (B) Compile records of analytical data from paragraph (3), summarized, and maintained onsite for a minimum of five years.
- (C) Furnish these records and data when either EPA or the State of Texas requests them for inspection.
- (D) Send along with all data a signed copy of the following certification statement, to attest to the truth and accuracy of the data submitted:

"Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of the Federal Code, which include, but may not be limited to, 18 U.S.C. § 1001 and 42 U.S.C. § 6928), I certify that the information contained in or accompanying this document is true, accurate and complete.

As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.

If any of this information is determined by EPA in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of waste will be void as if it never had effect or to the extent directed by EPA and that the company will be liable for any actions taken in contravention of the company's RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."

# (6) Reopener

- (A) If, anytime after disposal of the delisted waste Eastman possesses or is otherwise made aware of any environmental data (including but not limited to leachate data or ground water monitoring data) or any other data relevant to the delisted waste indicating that any constituent identified for the delisting verification testing is at level higher than the delisting level allowed by the Division Director in granting the petition, then the facility must report the data, in writing, to the Division Director within 10 days of first possessing or being made aware of that data.
- (B) If either the annual testing (and retest, if applicable) of the waste does not meet the delisting requirements in paragraph 1, Eastman must report the data, in writing, to the Division Director within 10 days of first possessing or being made aware of that data.
- (C) If Eastman fails to submit the information described in paragraphs (5),(6)(A) or (6)(B) or if any other information is received from any source, the Division Director will make a preliminary determination as to whether the reported information requires EPA action to protect human health and/or the environment. Further action may include suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.
- (D) If the Division Director determines that the reported information requires action by EPA, the Division Director will notify the facility in writing of the actions the Division Director believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing the facility with an opportunity to present information as to why the proposed EPA action is not necessary. The facility shall have 10 days from receipt of the Division Director's notice to

present such information.

(E) Following the receipt of information from the facility described in paragraph (6)(D) or (if no information is presented under paragraph (6)(D)) the initial receipt of information described in paragraphs (5), (6)(A) or (6)(B), the Division Director will issue a final written determination describing EPA actions that are necessary to protect human health and/or the environment. Any required action described in the Division Director's determination shall become effective immediately, unless the Division Director provides otherwise.

# (7) <u>Notification Requirements</u>:

Eastman must do the following before transporting the delisted waste. Failure to provide this notification will result in a violation of the delisting petition and a possible revocation of the decision.

- (A) Provide a one-time written notification to any state Regulatory Agency to which or through which it will transport the delisted waste described above for disposal, 60 days before beginning such activities.
- (B) For onsite disposal a notice should be submitted to the State to notify the State that disposal of the delisted materials have begun.
- (C) Update one-time written notification, if it ships the delisted waste into a different disposal facility.
- (D) Failure to provide this notification will result in a violation of the delisting variance and a possible revocation of the decision.

\* \* \* \* \* \* \*

Table 2 - Waste Excluded From Specific Sources

Facility	Address	Waste Description
* *	* *	* * *
Eastman Chemical Company-Texas Operations	Longview, TX	RKI Bottom Ash. (EPA Hazardous Waste Number F001, F002, F003, F005, F039, K009, K010, U001, U002, U031, U069, U107,U112, U117, U140, U147, U161, U213, and U359) generated at a maximum rate of 1,000 cubic yards per calendar year after [insert publication date of the final rule] and disposed in Subtitle D Landfill.
		RKI Fly Ash. EPA Hazardous Waste Number F001, F002, F003, F005, F039, K009, K010, U001, U002, U031, U069, U107, U112, U117, U140, U147, U161, U213, and U359 generated at a maximum rate of 2,000 cubic yards per calendar year after [insert publication date of the final rule] and disposed in Subtitle D Landfill.
		RKI Scrubber Water Blowdown (EPA Hazardous Numbers D001, D002, D003, D007, D008, D018, D022, F001, F002, F003, F005, F039, K009, K010, U001, U002, U031, U069, U107, U112, U117, U140, U147, U161, U213, and U359 generated at a maximum rate of 643,000 cubic yards (500,000 million gallons) per calendar year after [insert publication date of the final rule] and treated and discharged from a Wastewater Treatment Plant.
		Eastman must implement the testing program in Table 1. Wastes Excluded from Non-Specific Sources for the petition to be valid.

Table 3 - Waste Excluded From Commercial Chemical Products, Off-Specification Species, Container Residues, and Soil Residues Thereof

Facility	Address	Waste Description
* *	* *	* * *
Eastman Chemical Company-Texas Operations	Longview, TX	RKI bottom ash (EPA Hazardous Waste Number F001, F002, F003, F005, F039, K009, K010, U001, U002, U031, U069, U107,U112, U117, U140, U147, U161, U213, and U359) generated at a maximum rate of 1,000 cubic yards per calendar year after [insert publication date of the final rule] and disposed in Subtitle D Landfill.
		RKI fly ash EPA Hazardous Waste Number F001, F002, F003, F005, F039, K009, K010, U001, U002, U031, U069, U107, U112, U117, U140, U147, U161, U213, and U359 generated at a maximum rate of 2,000 cubic yards per calendar year after [insert publication date of the final rule] and disposed in Subtitle D Landfill.
		RKI scrubber water blowdown (EPA Hazardous Numbers D001, D002, D003, D007, D008, D018, D022, F001, F002, F003, F005, F039, K009, K010, U001, U002, U031, U069, U107, U112, U117, U140, U147, U161, U213, and U359 generated at a maximum rate of 643,000 cubic yards (500,000 million gallons) per calendar year after [insert publication date of the final rule] and treated and discharged from a Wastewater Treatment Plant.
		Eastman must implement the testing program in Table 1. Wastes Excluded from Non-Specific Wastes for the petition to be valid.  * * * * * * * * * * * * * * * * * * *

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